Section III:

AMENDMENT UNDER 37 CFR §1.121 to the

DRAWINGS

No amendments or changes to the Drawings are proposed.

Section IV:

AMENDMENT UNDER 37 CFR §1.121

REMARKS

Re-opening of Examination

Examiner has withdrawn the previous rejections responsive to applicant's arguments provided in the Appeal Brief filed December 2, 2004.   Applicant appreciates the opportunity to continue the prosecution of this application with the examiner.

Rejections under 35 U.S.C. §102(e)

Rejections over Klein

In the Office Action, claims 1, 4 - 6, 8 - 10, 13 - 15, 17 - 19, 22, 23, and 26 were rejected under 35 U.S.C. §102(e) over US Patent 6,496,853 to Klein (hereinafter "Klein"). Claims 1, 10 and 19 are independent claims, while the remaining claims subject to this ground of rejection are dependent from one of these independent claims.

Klein relates to processing of *multiple, separate* messages, wherein the messages are all related to the same subject matter or "conversation".   Because some of the messages will be replies to each other, some of the messages may include quoted text from other messages. Klein's system analyzes all of these multiple, related messages, and determines what text is 'redundant' or repeated from the other messages by comparing the messages to each other:

For example, Klein states:

> A system for managing messages so that **messages** with redundant
> contents need not be reviewed by a user. ... **Messages** with redundant
> contents **among the related messages** are then identified, and the
> **messages** with redundant contents are managed so that the user need
> not review the contents. The **messages** with redundant contents can be
> managed by creating a new message which includes the unique contents
> of each of the identified messages but at most a single copy of the
> redundant contents. ... (Abstract, emphasis added to illustrate use of
> plural messages)

and:

> ... While message threads can provide various benefits, receiving
> **message thread messages** can also create various problems. For
> example, a recipient of multiple message thread messages will often
> receive **multiple messages that include common content**. (Col 1, lines
> 59 - 63, emphasis added)

Klein uses several illustrations of how "message thread messages" or groups of related messages are generated and propagated in ordinary use of email systems, such as at column 1 lines 45 - 57 (emphasis added to illustrate plurality of messages):

> Consider, for example, the following situation in which co-workers send a
> series of emails that are part of a single message thread back and forth
> to each other, and each response message contains the contents of the
> message being responded to as well as additional unique content.
> Worker A first sends **message 1** to workers B and C and to supervisor D.
> Worker B responds to **message 1** with **response message 2** sent to A
> and D, and worker C responds to **message 1** with a distinct response
> message 3 sent to A and D. Thus, supervisor D has received message 1,
> message 2 which includes the contents of message 1 as well as
> additional contents, and **message 3** which includes the contents of
> message 1 as well as additional contents.

and:

> In one aspect of the invention, multiple electronic messages sent to the
> user are identified, **at least two of the electronic messages are
> determined to have contents that each include the contents of
> another electronic message**, and a new electronic message is
> generated containing the contents of the determined electronic messages
> in such a manner that the new electronic message contains only a single
> copy of the contents of the other electronic message. (Col. 2, lines 45 -
> 52, emphasis added).

and:

As shown in FIG. 2A, the message thread begins when User 1 210
creates message **M1215** and sends copies to User 2 220, User 3 230, and
User 4 240. User 1 also keeps a copy of message **M1**, either by explicitly
identifying User 1 as a recipient or through an automated feature of the
message sending program. At some point after receiving message **M1**,
User 2 creates a reply message **M2225** which User 2 sends to User 1. In
the illustrated embodiment, the contents of response messages include
all the contents of the messages to which they are responding, and may
also include message header information (e.g., the sender, recipients,
message send time, and message subject) from the messages to which
they are responding. Thus, message **M2** includes the contents of
message **M1**. While response message can include only the contents of
the message to which they are responding without adding any additional
contents, the response messages in this illustrated embodiment do
include additional content information unique to the response message.

Similarly to User 2, User 3 creates message **M3235** in response to
message **M1**, and sends message **M3** to Users 1, 2, 3, and 4. At some
point after sending message M1, User 1 realizes that User 4 should
receive additional information related to message M1. Thus, User 1
creates a new message **M4245** by forwarding a copy of message M1 to
User 4 along with additional new information. At some point after
receiving message M3, User 1 responds by creating response message
M6265 and sending the message to User 3. Similarly, at some point after
receiving message M3, User 2 creates response message **M5255** and
sends the message to Users 3 and 4. Finally, after receiving both
messages M6 and M5, User 3 creates message **M7275** as a response to
both messages, and sends the message to User 4. Thus, messages
M1-M7 are all part of the same message thread. (Col. 5, lines 16 - 50,
emphasis added)

Klein explains that their message processor compares multiple messages to each other to determine what information is "redundant" (e.g. common or repeated information between a plurality of messages):

> In particular, a Message Manager system monitors electronic **messages** received by a user, determines whether the received electronic **messages** are related to pending electronic messages for the user, and identifies **messages** with redundant contents among the related messages. After identifying **messages** with redundant contents, the Message Manager system manages the pending messages so that the user need not review the redundant contents. (Col. 3, lines 14 - 19, emphasis added)

and:

> The Message Receiver component 155 monitors **messages** received by the user of computer system 150, **compares received messages to other pending messages 159 to identify messages with redundant contents,** and manages the pending messages so that the user need not review the redundant contents. (Col. 3, lines 41 - 45, emphasis added)

Klein's Figures 2A and 2B show seven separate messages, *m1* through *m7*, in a thread or conversation with a root message of *m1*. Consistently, Fig. 4 shows a processing loop to compare multiple messages (#420 "Identify related messages...", #425 "Any messages?", #440 "For each message ...", #445 "Delete related messages...", etc.). Figures 5, 6, and 7 show details of their message-to-message comparison approaches using similar message ID's (#510), similar subject lines (#610), or similar contents (#710).

Clearly, Klein's system is directed towards processing *multiple* related messages to determine common content *between or among those messages*, and deletes that common or "redundant" content.

We have claimed processing of the body of a *single*, chain-forwarded or chain-replied message, wherein the body of the single message contains entries into the conversation:

> parsing text of the body of a *single chained* electronic mail message into discussion entries, said parsing being performed by finding delimiters and message segment indicators within the text of the chained electronic mail message which indicate the beginning and ending of two or more discussion entries wherein each discussion entry represents quoted text or content produced during a previously-performed message forward or message reply operation; (our claim 1, first step, emphasis added)

We have defined a "chained electronic mail message" as *a single* message in which the body contains information repeated or quoted from previous authors and recipients:

> Chained messages are forwarded several times or replied to several times. The method used employed by common SMTP e-mail software programs to display the multiple replies and comments can be somewhat confusing. For example, Table 4 shows one method that common e-mail software uses to display the forwarded text components of a chain-forwarded electronic message. In this example a right arrow or greater than symbol ">" is used to indicate how many previous instances of forwarding or replying levels have occurred for a given portion of the message.
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> Table 4: Example Display of Linearly Chain-forwarded E-Mail Message
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> From: first_recipients_name <first_recipients_email_address>
> To: second_recipients_name <second_recipients_email_address>
> Subject: FWD:text_of_the_subject_line_written_by_the_originator
> Here is something I thought you might find interesting from a friend of mine.
> >From: originator_name <originators_email_address>
> >To: first_recipients_name <first_recipients_email_address>
> >Subject: FWD:text_of_the_subject_line_written_by_the_originator
> > What do you think of this new information?
> >>From: update@online_news_service.com
> >>To: originator_name <originators_email_address>
> >>Subject: FWD:text_of_the_subject_line_written_by_the_originator
> >> Shares of company ABC hit all-time high after news of new product
> >> release. Company ABC announced that it's new XYZ product would ship

>> by the end of the year, and would be 5 times more efficient that the closest

>> competitor product.

As can be seen from the example given in Table 4, each time a portion of a text message is forwarded to a new recipient, an additional forwarding character is added along the left margin of the text. This example illustrates a simple linear forwarding scheme in which an automatic news service forwarded news to an originator of a message. The originator then forwarded that message to a first recipient, who then forwarded the same message to a second recipient, such that each time the message was forwarded, the current recipient added a comment of his own. (Pg. 13 line 7 through pg. 14 line 17)

In subsequent paragraphs, we have also referred to a message in this format as "chain forwarded" or "chain replied".

In our claims, we have recited:

reducing the discussion entries to discussion information by eliminating redundant and unnecessary information from said discussion entries; (claim 1, third step)

In this step, we are eliminating unnecessary information, such as TO and FROM fields or the quote characters such as ">>" and ">>>>", from *within the body of the single message*:

During the reformatting (44) stage, all **unnecessary** fields for interpreting the thread of discussion are eliminated from the displayed text, such as the FROM, REPLY_TO and SUBJECT fields, and optionally any time stamps. In some embodiments the time stamps may be retained, but in most embodiments the time stamps will be removed. Also, any special texts or markings in the original forwarded text, such as the greater than symbols ">" may be removed in order to provide greater readability. (pg 23 lines 5 - 11)

Klein is silent as to (a) processing the body of a *single* message to parse it into discussion entries stored within that *single message body*, and (b) eliminating unnecessary information *within the single message body*. Klein does not parse a single body of a message based upon delimiters, but rather compares multiple messages to determine "redundant" information. Further, Klein does not delete quotation delimiters such as ">" characters, but instead deletes repeated information from all but one message in a group of multiple messages.

As such, Klein does not anticipate Claims 1, 10 and 19 because Klein does not teach all of the steps, limitations or elements of these claims. As claims 4 - 6, 8, 9, 13 - 15, 17, 18, 22, 23, and 26 depend from Claims 1, 10 or 19, Klein also fails to anticipate these claims for the same reasons.

Applicant therefore requests withdrawal of all rejections and allowance of claims 1, 4 - 6, 8, 9, 10, 13 - 15, 17, 18, 19 22, 23, and 26.

Rejections under 35 U.S.C. §103

Rejections over Klein in view of Comer

In the Office Action, claims 7, 16, 24, 25 and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Klein in view of "Conversation-based Mail" by Douglas E. Comer, *et al.* (hereinafter "Comer"). Claim 7 depends from Claim 1, claim 16 depends from claim 10, and claims 24, 25 and 27 depend from claim 19.

The rationale for the rejections of claims 7, 16, 24, 25 and 27 relies upon the teachings of Klein to provide the claim elements as set forth in Claims 1, 10 and 19. For the foregoing reasons, Klein in view of Comer fails to teach all of the claimed elements, steps, and limitations. As such, the rejections should be withdrawn and the claims allowed.

Additionally, like Klein, Comer is also addressed to processing of "conversations" made up of multiple messages, not conversations contained within the body of a *single message*. Comer does not teach processing of chain-forwarded and chain-replied messages in which a *single* message contains all of the previous "installments" of the conversation, as inline quotes of the previous texts authored by other forwarding parties or other replying parties as we have described and claimed.

Comer, instead, describes grouping related messages (e.g. a *plurality* of messages, not just a single message) into "categories" which relate to "conversations". For example, Comer defines their "conversation" as (emphasis added):

> ... a communication abstraction through which a set of *participants*, denoted *P*, exchange a **set of messages**, denoted *M*. (Pg. 302, lines 21 - 22)

Throughout Comer's disclosure, the conversation *M* refers to a *plurality* of messages, not just a single message with inline quoted previous text conversation entries, such as (emphasis added):

> ... each participant has a *view* of the conversation corresponding to those **messages** he or she has viewed. Let $M_p \subseteq M$ denote the **subset of messages** viewed by participant $p \in P$. (Pg. 303 line 10 - 11)

Comer's Figure 1 shows a graph of their definition of a "conversation", which includes *multiple* messages a, b, c, and d. Comer's Figure 2 shows a data structure in which *multiple* messages m_1 through m_n make up conversation *G*.

Comer is silent as to handling a single message which contains the inline quotations of the previous installments to the conversation (e.g. what we have defined as a chain-forwarded or chain-replied message).

For these additional reasons, Klein in view of Comer does not teach all of the claimed steps, elements and limitations, and the rejections should be withdrawn. Applicant requests allowance of claims 7, 16, 24, 25 and 27.

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